1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name: SECURE® 360 SC Insecticide-Miticide

Product Code: 1230

Product Use: For the control of diamondback moth (Plutella xylostella) and cabbage white butterfly (pieris rapae) in brassica vegetables and twospotted mite (Tetranychus urticae) in apples, peaches and pears as per the Directions for Use table on the label.

Company Name: Crop Care Australasia Pty Ltd (ABN 53 061 362 347)

Address: 77 Tingira Street Pinkenba Queensland 4008 Australia

Emergency Tel.: 1800 033 498

Telephone/Telex: Tel: (07) 3867 9100 Fax: (07) 3867 9110

Product Type: Group 13A Insecticide

Other Information: This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Characterization</th>
<th>Ingredients</th>
<th>Name</th>
<th>CAS</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Chlorfenapyr</td>
<td>122453-73-0</td>
<td>360 g/L</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water</td>
<td></td>
<td>30-60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dispersants</td>
<td></td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Harmful by inhalation, in contact with skin and if swallowed.

4. FIRST AID MEASURES

**Inhalation**

Over-exposure by inhalation is improbable. Check for other causes of observed symptoms and seek medical advice.

If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

The above first aid instructions are mandated by the Commonwealth Department of Health and Aged Care via the National Drugs and Poisons Schedule. These instructions are suitable for ingestion of spray solution and small amounts of concentrate; however, if SUBSTANTIAL AMOUNTS of the concentrate have been swallowed (more than about 10ml) AND if medical assistance is more than 30 minutes away, the induction of vomiting should be CONSIDERED, preferably based on MEDICAL ADVICE if a physician can be contacted by phone. All care must be taken to prevent vomit from being inhaled. Do not give anything by mouth to a semi-conscious or unconscious person.

**Skin**

Wash affected areas thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

**Eye**

If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.

Seek medical advice.

**First Aid Facilities**

If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26 (Australia).
5. FIRE FIGHTING MEASURES

Extinguishing Media
If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material. Avoid using large volumes of water which would spread the product.

Specific Hazards
Considered low risk due to water content, however upon evaporation of water the product is combustible.

Hazardous Combustion Products
If involved in a fire, the dehydrated components may emit oxides of carbon and nitrogen, halogenated hydrocarbons (F, BR, Cl) and hydrogen cyanide.

Emergency Action in case of Fire
If exposed to fire, keep container cool by spraying with water.

Protective Equipment
Breathable air apparatus should be worn when fighting a fire in which chlorfenapyr is involved.

Other Information
Prevent fire water from entering drains or water bodies.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal
Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal.

Personal Protection
For appropriate personal protective equipment (PPE), refer Section 8.

Environmental Precautions
Prevent from entering drains, waterways or sewers. Use earthen bunds or absorbent bunding to prevent spreading of spillage.

7. HANDLING AND STORAGE

Handling
Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.

Storage
Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits
No exposure standards have been set for this product.

Respiratory Protection
Do not inhale spray mist.

Personal Protective Equipment
When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles.

Eng. Controls
Handle in well ventilated areas, generally natural ventilation is adequate.

Hygiene Measures
After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.

Requirements Concerning Special Training
NSW regulations require that people who use pesticides in their job or business must have training in the application of the materials. By 1st September, 2005 all users must have received such training.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Tan coloured liquid suspension concentrate

Odour
Mild sweet odour

Solubility in Water
Disperses in water.

Specific Gravity (H2O=1)
1.16

Vapour Pressure
1.2 x 10^-2 mPa
Partition co-efficient, Kow Log P is 4.83
n-octanol/water
Flammability Non combustible material.

10. STABILITY AND REACTIVITY
Stability Stable under normal conditions.
Hazardous Polymerisation Hazardous polymerisation is not possible.
Hazardous Reaction Keep away from strong oxidising agents.

11. TOXICOLOGICAL INFORMATION
Toxicology Information No harmful effects are expected if the precautions on the label and this MSDS are followed.
Inhalation Not a likely route of exposure.
Symptoms of exposure by inhalation are similar to those described for ingestion.
Ingestion No specific symptoms. Possible generalised symptoms include nausea and vomiting.
Skin Prolonged contact with the concentrate may cause irritation.
Eye May cause some discomfort if contact is prolonged.
Chronic Effects Evidence from animal studies indicate that repeated or prolonged exposure to high doses of chlorfenapyr can result in spongiform (encephalomyelopathy) and effects on the liver and kidney.
Reproductive Toxicity No such effects have been observed in the absence of maternal toxicity.
Mutagenicity Data indicates no mutagenic effects.
Carcinogenicity Data indicates no carcinogenic effects.
Acute Toxicity - Oral LD50 (rat) 500 mg/kg for the formulated product
Acute Toxicity - Dermal LD50 (rabbit) >1800 mg/kg for the formulated product
Acute Toxicity - Inhalation LC50 (rat) (4hr) 2.1 mg/l for the formulated product
Eye Irritation Not an eye irritant.
Skin Irritation Mild skin irritant.
Skin Sensitisation Product is not a skin sensitiser.
Other Information The Australian Acceptable Daily Intake (ADI) for chlorfenapyr for a human is 0.02 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 2.1 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, June 2004).

12. ECOLOGICAL INFORMATION
Known Harmful Effects on the Environment May adversely affect mite predators and other beneficial organisms.
Other Precautions Do not spray on vegetation where honeybees are foraging.
Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
Persistence / Degradability Soil adsorption Koc 10,000 - 15,000 mg/kg.
In water, half life for chlorfenapyr is 4.8 - 7.5 days.
Acute Toxicity - Fish The following is data for the active ingredient, chlorfenapyr.
Toxic to fish. LC50 (96hr) for rainbow trout is 0.00744 mg/l.
LC50 (96 hr) for bluegill sunfish is 0.011 mg/l.
Acute Toxicity - Daphnia LC50 (48 hr) for daphnia is 0.00611 mg/l for chlorfenapyr.
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Acute Toxicity - Other The following data is for the active ingredient, chlorfenapyr.
Organisms
LD50 for mallard duck is 10 mg/kg
LD50 for bobwhite quail is 34 mg/kg
Bees: Toxic to bees. LD50 0.2 µg/bee.

13. DISPOSAL CONSIDERATIONS

Product Disposal On site disposal of the concentrated product is not acceptable.
Ideally, the product should be used for its intended purpose. If there is a need
to dispose of the product, approach local authorities who hold periodic
collections of unwanted chemicals (ChemCollect).

Container Disposal Triple rinse containers, add rinsate to the spray tank, then offer the container
for recycling/reconditioning, or puncture top, sides and bottom and dispose of in
landfill in accordance with local regulations.

14. TRANSPORT INFORMATION

U.N. Number None Allocated
DG Class None Allocated
Hazchem Code None Allocated
Packing Group None Allocated

Storage and Transport Considered non dangerous for transport by the Australian Code for the Transport of
Dangerous Goods by Road and Rail.
UN Number (Sea Transport) 3082
IMO Class/Packing Group Class 9; Packing Group III
IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains chlorfenapyr)

15. REGULATORY INFORMATION

Risk Phrase R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
Safety Phrase S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
S46 If swallowed, seek medical advice immediately and show this container or
label.

Poisons Schedule S6
Hazard Category Harmful
Packaging & Labelling KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

16. OTHER INFORMATION

© Registered trademark of BASF
Material Safety Data Sheet

Product Name:  **SECURE® 360 SC Insecticide-Miticide**

Classified as hazardous according to criteria of NOHSC

Contact Person/Point
Normal Hours: Mr Volker Maier  Phone: (03) 9282 1000
After Hours: Shift Supervisor  Phone: 1800 033 498

Revisions Highlighted
The MSDS was reviewed. Minor changes were made to the information.

...End Of MSDS...